4) Dark Fiber Loops Must Be Included Within the Definition of Loops.

The Commission should clarify that dark fiber deployed from the end office to an end-user location can be requested as a loop.[65] As ILECs deploy extensive fiber facilities to end-user locations, such as multi-tenant buildings, CLECs should have access to "dark fiber" loops that are not otherwise lit by the ILEC. These facilities are no different than ordinary loops except that they require the CLEC to provide additional electronics equipment in order to provide service to the end-user. The application of Section 251(d)(2) is no different as well. Denial of access to dark fiber in loops would otherwise preclude the entry of competitors until they were able to deploy extensive fiber facilities to match the extraordinary amount of fiber that ILECs have deployed over the last decade and a half.[66]

c. Access to Loops Under Section 251(c)(3).

In exercising its authority to define network elements the Commission needs to accomplish two goals. First, it needs to redress the failure of ILECs to provide access to loops that represent advances in technology or network engineering by explicitly delineating the types of loops that must be available. Second it must define network elements sufficiently broadly to capture future changes in technology and network engineering.

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[65] Dark fiber loops are optical fiber connections deployed from an ILEC office or point of presence to an end-user premises, without electronic equipment in place necessary to send traffic over the facility. CLECs requesting dark fiber loops would deploy their own electronic equipment in order to use the loop to provide telecommunications services.

[66] See e.g., Fiber Deployment Update, End of Year 1997 Federal Communications Commission, Common Carrier Bureau, Industrial Analysis Division (1998).

1) Loops Provisioned by Digital Loop Carrier Systems.

NEXTLINK and other CLECs have encountered significant technical issues in obtaining access to loops deployed in part through integrated digital loop carrier ("IDLC") facilities.[67] IDLC-deployed loops are often used to serve remote locations, or locations that are significantly far from the central office that the loop length presents problems for service quality.[68] IDLC also is often used to serve new locations where new facilities are required to be built.[69] If IDLC is deployed, several individual loops will terminate at a point between the end-user location and the serving central office. This "in-between" point houses a connection commonly referred to as a feeder distribution interface ("FDI"). The traffic from individual loops in turn is transferred to the IDLC facility for transport from the FDI to the central office.

NEXTLINK has encountered continuous difficulties in obtaining nondiscriminatory access to loops that utilize IDLC.[70] The Commission's current rules requiring access to the loop in the central office have served to prevent CLEC access to loops when IDLC facilities are present because many forms of IDLC equipment afford no access to that loop in the central

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[67] NEXTLINK has also encountered similar issues when remote switching units are deployed in ILEC networks. See Section III.A.1.c.3. infra (discussion of remote switching units).

[68] See Petition of NEXTLINK Pennsylvania, L.L.P. for Arbitration of an Interconnection Agreement with Bell Atlantic-PA, Inc., Pursuant to the Telecommunications Act of 1996, A-310260F0002, Hearing Transcript (April 23, 1998) ("NEXTLINK-PA Arbitration Hearing Transcript") at 301 ("I would guess that it's in newer areas where new business parks are springing up and possibly in areas that are further away from the central office rather than closer where you might be able to deliver [services] directly on copper cable."). See generally, Advanced Services MO&O, 13 FCC Rcd at 24110, Appendix C.

[69] NEXTLINK-PA Arbitration Hearing Transcript at 301.

[70] See NEXTLINK-PA Arbitration Hearing Transcript at 299. ("The bottom line is that we're looking for circuits that are equal in quality. Equal in quality to what the customer use to experience when they were on Bell. Our feeling is that moving over to abandoned metallic plant represents a step backward. And that moving [from IDLC] to universal digital loop carrier is fraught with problems at the time of the cutover.").

office.[71] In the First Local Competition Order, the Commission acknowledged the difficulties presented by the presence of IDLC technology but only generally affirmed the right of CLECs to obtain nondiscriminatory access to the loop, even where the ILEC deploys IDLC systems.[72] CLECs and ILECs, however, had minimal experience with access to unbundled loops at that time.[73] Therefore, even though the Commission affirmed the right of CLECs to gain nondiscriminatory access to loops no matter what facilities the ILEC deployed in those loops, the Commission did not have an adequate record at that time to develop more precise rules regarding how ILECs should provide CLECs with nondiscriminatory access to loops using an IDLC system.

ILECs have generally offered NEXTLINK only the use of a spare copper loop when NEXTLINK seeks to serve an existing ILEC customer on an IDLC system.[74] This practice is inherently discriminatory. First, the ILEC is not offering NEXTLINK access to the same loop it uses to provide service to that customer. The use of an existing spare copper loop may meet minimal specifications to provide POTS service, but in most circumstances it cannot be used by the CLEC to provide the customer with service at parity with the ILEC's offering.[75] This is particularly evident where the customer is located at a significant distance from the nearest

[71] Even though some types of IDLC support access to the loop in the central office, ILECs have resisted CLECs efforts to use that access. NEXTLINK-PA Arbitration Hearing Transcript at 303-304.

[72] First Local Competition Order, 11 FCC Rcd at 15692-93.

[73] Id., 11 FCC Rcd at 15684.

[74] Where ILECs do not have a spare copper loop available, ILECs have sought to impose special construction charges on CLECs for the construction on a new copper loop. Special construction charges can run into thousands of dollars and delays of several months. Loops provided through the special construction process cannot meet the ILEC's obligation to provide nondiscriminatory access to the loop.

[75] See NEXTLINK-PA Arbitration Hearing Transcript at 301.

central office.[76] Further, the gap in service quality between a spare copper loop and an IDLC-deployed loop is even more dramatic when the CLEC attempts to utilize the loop to provide a higher bandwidth service, such as an xDSL service. Most advanced services require a shorter loop distance than is used for traditional voice service in order to maintain an adequate level of transmission quality. In this circumstance, the spare copper loop is not only discriminatory, it is an unworkable option to provide these services to the consumer. Neither Congress nor the Commission intended that ILECs' deployment of new digital technology, such as IDLC, would hold consumers hostage to the ILEC.

The Commission, therefore, should reaffirm the ILECs obligation to provide CLECs with nondiscriminatory access to the loop regardless of what facilities the ILEC deploys in its network. ILECs should be required to provide CLECs with access to IDLC-deployed loops at all technically feasible points. In many instances, dependent on the IDLC equipment deployed, CLECs should be able to request access to an IDLC-deployed loop at the digital side of the IDLC technology in the central office or at the point in the field where the IDLC feeder is connected to individual copper loops. As carriers deploy IDLC, and Universal Digital Loop Carrier ("UDLC"), and as they begin to deploy Next Generation Digital Loop Carrier technologies in their networks, the Commission must reaffirm the right of CLECs to gain nondiscriminatory access to the loop for the provision of all services, not just lower bandwidth voice services. The Commission therefore, should require ILECs, where they have deployed IDLC or similar digital loop facilities, to provide CLECs with access to that loop facility at any technically feasible point requested by the CLEC. If no such point exists, ILECs should provide

[76] Id.

access to a loop facility that the CLEC can combine with its own facilities or other network elements to provide its desired service to the end-user.

It is also important that these principles not be limited in application to IDLC. As ILECs use other or new technology in their networks, it is even more vital to competition that the Commission require broadly that all forms of loop technology be made available to CLECs on a nondiscriminatory basis.

2) Extended Loops.

Access to a loop through the use of transport, often referred to as an "extended loop" is an extension of a loop over a dedicated interoffice transmission channel.[77] Extended loops promote competition in the local telecommunications market by increasing the number of end-users a facilities-based competitor can reach with a competitive alternative service. NEXTLINK has obtained the right to use loops in this manner in some states, but only after protracted litigation and not in all instances subject to reasonable conditions or cost-based rates.[78]

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[77] The extended loop may also require the use of multiplexing or aggregation functionality.

[78] See e.g., Proceeding on Motion of the Commission to Examine Issues Related to the Continuing Provision of Universal Service and to Develop a Regulatory Framework for the Transition to Competition in the Local Exchange Market, Case 94-C-0095, et. al., Order Declaring Resale Prohibitions Void and Establishing Tariff Terms (June 25, 1996) (The New York Public Service Commission specifically directed Bell Atlantic (then NYNEX) to file tariffs to provide extended loops); Interconnection Agreement Under Sections 251 and 252 of the Telecommunications Act of 1996 between New York Telephone Company d/b/a NYNEX and NEXTLINK New York, L.L.C., October 20, 1997, at § 9.1.5 ("NEXTLINK New York Agreement"). The Pennsylvania Public Utility Commission and the Utah Public Service Commission have also ordered Bell Atlantic and U S WEST respectively to provide extended loops to NEXTLINK after protracted arbitration proceedings. NEXTLINK Pennsylvania Arbitration Final Order; NEXTLINK Utah Arbitration Award. Bell Atlantic, in fact, continues to dispute its obligation to provide NEXTLINK with access to extended loops. See Bell Atlantic Pennsylvania, Inc., v. NEXTLINK Pennsylvania L.L.P.; Pennsylvania Public Utility Commission; and John M. Quain, Robert K. Bloom, David W. Rolka, Nora Mead Brownell and Aaron Wilson, Jr., in their official capacities as Commissioners of the Pennsylvania Public Utility Commission, Complaint for Declaratory and Injunctive Relief Under the Telecommunications Act of 1996, 99-cv-494 (January 29, 1999).

There is no question that the provision of an extended loop is a technically feasible arrangement that can be provided by ILECs.[79] Furthermore, the only requirements for where and how to provide access to a network element are to be found in Section 251(c)(3) which provides that the ILEC must provide access "at any technically feasible point." As the loop can be provided on an "extended" basis from another central office, the Commission should require that ILECs provision the extended loops upon CLEC request.

Although NEXTLINK urges the Commission to define the extended loop as a means of accessing the loop itself, NEXTLINK would support the alternative approach of requiring ILECs to provide a "combination" of transport and loop that provided the same functionality as NEXTLINK has discussed above.[80]

3) Loops Provisioned By Remote Switching Units.

When an ILEC has deployed a remote switching unit to serve certain customers, the ILEC should not be permitted to require that CLECs access the unbundled loop by collocation at the remote switching location, which is not required by Commission rules and often is not even feasible.[81] It is the ILEC's decision to deploy a particular loop technology, whether that is a single copper loop, a combination of copper and fiber, or loops passing through a remote switch. Allowing the ILEC to dictate the point of access, such as at a remote switching unit, will inevitably result in ILEC efforts to drive up CLEC costs and shield consumers from competition.

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[79] See NEXTLINK Utah Arbitration Award; NEXTLINK Pennsylvania Arbitration Final Order.

[80] See Section III.B.3.a. infra (discussion of combination of loop and transport).

[81] See Petition of NEXTLINK Tennessee L.L.C. for Arbitration of Interconnection with BellSouth Telecommunications, Inc., Rebuttal Testimony of Russell Land on behalf of NEXTLINK Tennessee, L.L.C., Docket No. 98-00123 at 45.

ILECs should not be permitted to evade their obligations to provide access to loops via the type of technology they deploy in their networks.

Not surprisingly, some ILECs have been remarkably agile in their use of Commission rules to deny NEXTLINK access to network elements where remote switches are involved. Most ILECs initially took a firm position against what they deemed to be "sub-loop" unbundling.[82] For example, NEXTLINK initially obtained access to BellSouth's loops provisioned through remote switching units through collocation in the central office.[83] However, as NEXTLINK sought to compete with BellSouth in more areas served with loops provisioned via remote switching units, BellSouth, began to require NEXTLINK to collocate at remote switching units in order to gain access to those loops.[84] BellSouth's collocation requirement, as BellSouth well knew, deterred NEXTLINK from competing for those customers by imposing a more onerous, costly collocation requirement.

The Commission, therefore, should clarify that ILECs must provide CLECs with nondiscriminatory access to loops provisioned in part through remote switching facilities and

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[82] See First Local Competition Order, 11 FCC Rcd at 15687-89.

[83] Petition of NEXTLINK TENNESSEE L.L.C. For Arbitration of an Interconnection Agreement With BellSouth Telecommunications, Inc., Direct Testimony of Russell Land on behalf of NEXTLINK Tennessee, L.L.C., Docket No. 98-00123 at 26-32.

[84] See NEXTLINK Tennessee Arbitration Order at 27-29. The Tennessee Regulatory Authority agreed with BellSouth that NEXTLINK must obtain access to loops at the remote switching unit (The TRA also agreed with BellSouth that the presence of the remote switching unit made access to the loop a combination). Id. Finally, the TRA decided it was not necessary for NEXTLINK to collocate in the remote switching unit to combine the "loop" (the copper facility terminating at the remote switching unit location) and the "transport" (the digital facility carrying multiplexed traffic from the remote switching unit to the switch at the central office) but that it could not perform the "combining" itself and would need to hire a third party vendor in order to do so. Id. Needless to say, this will raise NEXTLINK's costs, thus impairing NEXTLINK's ability to compete for BellSouth customers served presently via loops provisioned through remote switching units.

that CLECs may obtain access to those loops at any technically feasible point, including at the host switch or the remote switching unit itself, at the option of the requesting CLEC.

4) Sub-loop or Intra-Loop Access.

The Commission will undoubtedly face new requests for "sub-loop" unbundling. NEXTLINK submits that the history of sub-loop unbundling reflects a fundamental misconception of CLECs' requests for access to the loop and unnecessarily complicates what is in reality a straightforward, pro-competitive request. First of all, if the loop is properly defined as the facility providing a connection between the competitor's network and the end-user, in almost every situation where the CLEC requests "sub-loop" unbundling, the CLEC actually is requesting access to a loop, i.e., a facility that will provide the CLEC with a connection between its network and the end-user. It is still the loop that is at issue, and the ILEC must still provide the loop as a necessary network element under the same Section 251(d)(2) analysis. The only question then becomes, is the point of access requested by the CLEC "technically feasible." If it is, then the ILEC must allow the CLEC access at that point in order for the CLEC to provide the desired telecommunications service to the end-user.

2. Interoffice Transport.

The ubiquitous nature of ILEC transport remains critical to the development of local competition and to the UNE entry method in particular. At this early stage of local competition, a competitive wholesale market for transport facilities has not developed and unbundling remains an essential component of the infrastructure of local competition.

a. ILECS Must Provide Transport Under the Section 251(d)(2) Standard.

Interoffice transport is a non-proprietary network element that qualifies for unbundling under the "impair" test of Section 251(d)(2)(B). In its First Local Competition Order, the Commission determined that interoffice transport was not "proprietary."[85] The Commission should continue to conclude that interoffice transport unbundling does not involve the disclosure of competitively-sensitive information or processes protected by intellectual property laws.

In the First Local Competition Order, the Commission concluded that unbundled transport would "increase the speed with which competitors enter the market;"[86] "decrease the cost of entry compared to the much higher cost that would be incurred by an entrant that had to construct all of its own facilities;"[87] and "improve competitors' ability to design efficient network architecture, and in particular, to combine their own switching functionality with the incumbent LEC's unbundled loops."[88] The environment for transport has not significantly changed in the last three years.

ILECs continue to possess the only widely-deployed transport facilities, and without access to those facilities, CLECs' ability to compete would be significantly delayed and the costs of market entry would be greatly increased. There simply are not readily available third-party wholesale transport facilities. CLECs, therefore, are left with the option of self-provisioning

[85] See First Local Competition Order, 11 FCC Rcd at 15720 ("Commenters do not identify any proprietary concerns relating to the provision of interoffice facilities that LECs are required to unbundle.").

[86] Id. at 15718-19.

[87] Id.

[88] Id. at 15720-21(finding that interoffice transport meets the "impair" test, as then defined by the Commission.).

every individual facility deployed.[89] Even if CLECs incur the time and expense of self-provisioning for the foreseeable future, they will not be able to duplicate the extensive facilities deployed by ILECs.

In its First Local Competition Order, the Commission noted that "there are alternative suppliers of interoffice facilities in certain areas."[90] Then, as now, an efficient wholesale market for interoffice transport simply has not developed. In fact, even where self-provisioned facilities have been built, it has been on a limited number of routes in very dense urban areas.[91] A wholesale market for transport is still years away, even in those areas where CLECs have initially invested in facilities. Moreover, there is simply no evidence that these self-provisioned facilities have been made available on a wholesale basis to other carriers. For most customers and locations, ILEC unbundled transport is the only available option.[92]

b. Definition of Transport Network Element.

As well as ordering transport unbundling, the Commission must clarify that transport must be available both between ILEC offices, and between an ILEC office and a CLEC point of

[89] In addition, CLECs have no option to self-provision prior to obtaining franchise authority and authority to access public rights-of-way. In some cases, the franchise process can cause lengthy delays in the time it takes for a CLEC to enter the market. Often the only alternative available to enter a market before franchise approval is secured is leased transport from the ILEC.

[90] Id. at 15718-19.

[91] See e.g., NEXTLINK Comments in Petition of the Bell Atlantic Telephone Companies for Forbearance from Regulation as a Dominant Carrier in Delaware; Maryland; Massachusetts; New Hampshire; New Jersey; New York; Pennsylvania; Rhode Island; Washington, DC; Vermont; And Virginia, CC Docket No. 99-24 (March 17, 1999) at 5-8. In comments in the Commission's Access Charge Reform proceeding, CC Docket No. 96-262, NEXTLINK and other CLECs have demonstrated that, in the three years since the 1996 Act, although competitors have made significant investment in alternative facilities, currently only ILEC facilities exist to serve the overwhelming majority of customers.

[92] Id.

presence. The Commission must define the transport elements so that ILECs must provide the essential function of transport – the transmission of traffic between ILEC offices, and ILEC and CLEC offices – regardless of the technology or facilities deployed in their networks.

1) The Commission Should Affirm that Its Existing Interoffice Transport Definition Requires ILECs to Provide Unbundled Access to "Entrance Facilities" and High Capacity Transport.

In its First Local Competition Order, the Commission concluded that:

> [I]ncumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between those offices and those of competing carriers. This includes, at a minimum, interoffice facilities between end offices and serving wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the incumbent LEC, and the wire centers of incumbent LECs and requesting carriers.[93]

NEXTLINK supports this conclusion and requests that the Commission explicitly reaffirm its findings in its order on remand. Consistent with the language above and to facilitate connectivity between ILEC and CLEC networks, the Commission should clarify that unbundled interoffice transport must be made available between ILEC offices and between an ILEC office and a CLEC point of presence. This clarification is necessary to prevent litigation and delay and to curb efforts by ILECs to charge non-TELRIC-based rates for "entrance facilities" between their own offices and a CLEC's point of presence.

NEXTLINK also requests that the Commission explicitly affirm another of its First Local Competition Order conclusions with respect to unbundled transport. There, the Commission found that ILECs must provide unbundled access to "all technically feasible transmission

[93] First Local Competition Order, 11 FCC Rcd at 15718.

capabilities, such as DS1, DS3, and Optical Carrier services."[94] An explicit affirmation of this conclusion is necessary because, despite this language, most ILECs have resisted giving CLECs access to high speed transport. High speed transport is non-proprietary in nature and qualifies for unbundling under the impair test, because requesting carriers' ability to compete will be materially diminished without it. Moreover, high speed transport is essential to bringing broadband innovations to the marketplace. Unbundling high speed transport, therefore, is not only consistent with the impair standard, but also with the public interest and the promotion of advanced services under Section 706.

2) The Commission Should Clarify that Multiplexing is Part of the Transport Element.

NEXTLINK has encountered ILEC resistance to providing multiplexing functionality as part of the transport element as required by the Commission.[95] Although, the Commission's current definition of transport includes functionality provided by the incumbent LEC's digital cross-connect ("DCS") systems, [96] NEXTLINK has encountered difficulty in obtaining that functionality from some ILECs.[97] For example, BellSouth has refused to provide DCS as part of

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[94] Id.

[95] See NEXTLINK Tennessee Arbitration Ruling. The Tennessee Regulatory Authority ("TRA") accepted BellSouth's argument that transport and DCS functionality are two separate network elements that BellSouth does not have to provide in combination. The TRA further concluded that to the extent that BellSouth is willing to "combine transport and DCS for NEXTLINK, the parties should negotiate the charge that would apply to such combinations, with the combinations and charges not being subject to the requirements of the 1996 Act." Id. at 9 (emphasis added).

[96] 47 C.F.R. § 51.319(d)(2)(iv). See First Local Competition Order, 11 FCC Rcd at 15712-20.

[97] See e.g., NEXTLINK Tennessee Arbitration Ruling.

unbundled transport, claiming that BellSouth does not have to provide DCS functionality in offices where NEXTLINK is not collocated.[98]

The Commission should clarify that DCS functionality is part of the transport network element that ILECs must provide to competitors. This is only logical as DCS, on its own, does not provide the function of carrying traffic from one office to another or between an ILEC office and NEXTLINK. The sine qua non of interoffice transmission is transport between offices – DCS does not and cannot accomplish that function without other transport links on either side. The refusal of some ILECs to provide multiplexing functionality with transport is no different than the refusal of some ILECs to provide a cross-connect with an unbundled loop. This is clearly anti-competitive. NEXTLINK should be able to obtain needed DCS functionality as part of the transport network element.

3. Inside Wire.

NEXTLINK agrees with the Commission's concern that inside wire owned or controlled by ILECs can preclude CLECs from providing service to some customers, particularly those in multi-unit locations, and may need to be provided as a network element under Section 251(d)(2). In any situation where the ILEC controls or owns inside wire (i.e., wire that is located on the end-user side of the demarcation point), the ability of the CLEC to provide service to the end-user through access to an ILEC loop is cast into doubt because of the uncertain status of that inside wire.

[98] NEXTLINK Tennessee Arbitration Ruling at 4-5. "BellSouth argues that NEXTLINK can obtain access to the routing capabilities provided by DCS without collocating by purchasing BellSouth's FlexServ offering. This retail service allows NEXTLINK to establish a link from a remote location to the control center in order to manage its own facilities through DCS with collocating." Id. The "FlexServ" offering from BellSouth, not surprisingly, is not offered at TELRIC rates.

Under the Commission's rules it is not clear that inside wire, including riser cable in buildings, can be considered as part of the loop, or can otherwise be defined as a separate network element that the ILEC must provide. The Commission has requested comment on "situations where the incumbent LEC owns facilities on the end-user's side of the network demarcation point and whether those facilities should be unbundled under Section 251(c)(3)."[99] The percentage of end-users who receive service in multi-unit buildings (both business and residential) is significant. As a result, the Commission should address the issue of how CLECs may provide service to these end-users using the same Section 251(d)(2) analysis that it employs for the network elements previously defined by the Commission in the First Local Competition Order.

a. ILECs Must Provide Inside Wire Under the Section 251(d)(2) Standard.

NEXTLINK is not aware of any claim made by ILECs over the last three years that inside wire raises proprietary issues. If ILECs make claims to the contrary in this proceeding, NEXTLINK will address those claims in its reply comments. In any event, as the experience of the last three years has proven, access to inside wire in multi-unit buildings is absolutely necessary to provide services in those buildings. It is almost impossible to do so without access to the existing inside wire. Perhaps, even more costly, time consuming and unnecessary than the deployment of new loop facilities in the public rights-of-way, rewiring a building involves an expenditure of resources that delay and impair competition between CLECs and ILECs. CLECs and potential customers within multi-unit buildings have suffered discriminatory treatment from owners of inside wire, both ILECs and landlords. ILECs and landlords have proposed

[99] Remand NPRM at para. 33.

astronomical charges for CLEC access to inside wire, well above any reasonable cost-based rate. In this proceeding, the Commission can directly address inside wire owned or controlled by ILECs. The Commission, therefore, should define inside wire owned or controlled by ILECs as a network element and require ILECs to provide CLECs with nondiscriminatory access at cost-based rates.

4. Network Interface Device ("NID").

NEXTLINK believes that NIDs, although part of the loop, should also be made available as a distinct network element. The NID, just like the loop and inside wire, is a potential bottleneck to providing service to customers.

a. ILECs Must Continue to Provide the NID Under the Section 251(d)(2) Standard.

Like the local loop, the NID is a nonproprietary network element that qualifies for unbundling under the impair test of Section 251(d)(2)(B).[100] The NID is located at individual customer premises making the availability of existing alternative supply extremely unlikely. Self-provisioning, although possible, often is not a viable alternative for economic and building access reasons. For example, in many instances due to space limitations or the refusal of landlords to grant permission to CLECs, it is simply not possible to self-provision another NID. In the same manner that CLECs cannot duplicate the ubiquitous deployment of ILEC loops, CLECs are unable to match the scope and scale of existing deployed ILEC NIDs. The Commission, therefore, should require ILECs to make the NID available to CLECs as a UNE.

[100] First Local Competition Order, 11 FCC Rcd at 15697 ("we conclude that the unavailability of access to incumbent LECs' NIDs would impair the ability of carriers deploying their own loops to provide service."). Although, NEXTLINK contends that unbundled access to NIDs is necessary, NEXTLINK seeks to clarify that the NID is also appropriately a part of an unbundled loop. The Commission should clearly state so in its rules to avoid potential for ILEC abuse.

5. Signaling Systems and Call-Related Databases.

As the Commission recognized in its First Local Competition Order, nondiscriminatory access to signaling networks and call related databases is essential to the effective interconnection of ILEC and CLEC networks.[101]

a. ILECs Must Continue to Provide the SS7 Signaling and Call-Related Databases Under the Section 251(d)(2) Standard.

The Commission previously found that SS7 signaling and access to call-related databases are based on Bellcore standards and are therefore nonproprietary.[102] The Commission should continue to find SS7 signaling and access to call related databases nonproprietary because both can be provided on an unbundled basis without revealing proprietary information. Access to Service Management Systems ("SMS") also should be nonproprietary because unbundled access does not reveal proprietary processes or methods.[103] Thus, unbundled access to SS7 signaling, call-related databases and the SMS needed to effectively use call-related databases should be evaluated under the "impair" standard in Section 251(d)(2)(A).[104]

Over the past three years, no comparable alternatives have developed for ILEC signaling or call databases. With respect to call-related databases, there simply are no substitutes. Thus, with respect to SS7 signaling, call-related databases, and SMS, it is clear that competitors' ability to compete would be materially diminished in the absence of an unbundling requirement.

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[101] First Local Competition Order, 11 FCC Rcd at 15738. (recognizing that such access is required under Section 251(c)(2)).

[102] Id. at 15739-40, 15744.

[103] Id. at 15749.

[104] In the First Local Competition Order, the Commission concluded that signaling, call-related databases and SMS each met the "impair" test, as then defined by the Commission. Id. at 15740, 15745 and 15749.

6. Operations Support Systems.

Access to Operations Support Systems ("OSS") functions is a critical network element that is necessary for access to all other network elements. The Commission and numerous state commissions have confirmed the importance of access to OSS functions as a prerequisite to nondiscriminatory access to network elements and resale. The Commission's conclusions in the First Local Competition Order to require ILECs to provide access to OSS functions are just as valid now as they were three years ago.

a. ILECs Must Continue to Provide the OSS Under the Section 251(d)(2) Standard.

Under the standard proposed by NEXTLINK, OSS does not qualify as "proprietary," for the purposes of Section 251(d)(2). Although some ILECs have developed what they claim to be proprietary interfaces, unbundled access to those interfaces does not reveal any proprietary aspect subject to protection under the nation's intellectual property laws. Thus, NEXTLINK submits that OSS unbundling must be evaluated under the "impair" test.[105]

There can be no question that a requesting carrier's ability to compete would be diminished materially without unbundled access to OSS. The Commission's First Local Competition Order conclusions regarding the importance of unbundled access to OSS have been affirmed by the Commission repeatedly in its orders over the past three years. Specifically, the Commission found that:

> Without access to review, inter alia, available telephone numbers, service interval information, and maintenance histories, competing

[105] In its first application of the Section 251(d)(2) standard, the Commission applied both the "necessary" and "impair" tests and concluded that unbundled access to OSS was "essential." Although different standards must be applied on remand, the Commission's original conclusion aptly suggests that OSS unbundling is required under any possible interpretation of the Section 251(d)(2) standards. Id. at 15766.

> carriers would operate at a significant disadvantage to the incumbent. Other information, such as the facilities and services assigned to a particular customer, is necessary to a competing carrier's ability to provision and offer competing services to incumbent LEC customers. Finally if competing carriers are unable to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for network elements and resale services in substantially the same time and manner that the incumbent can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing. Thus providing nondiscriminatory access to these support system functions, which would include access to the information such systems contain, is vital to creating opportunities for meaningful competition.[106]

The impair standard is more than satisfied. ILECs' OSS cannot be replaced by self-provisioning or by alternative vendors. For local competition to take hold and to ensure that UNE-based entry remains viable, the Commission must retain its OSS unbundling requirement.

B. The Commission Must Clarify that Combinations of Certain Network Elements Are Mandated by the Necessary and Impair Standards.

Section 251(c)(3) provides that "[a]n incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide [a] telecommunications service."[107] In the First Local Competition Order, and in subsequent orders rejecting Section 271 applications, the Commission has stated that Section 251(c)(3) means what it states: competitors must have access to combinations of network elements in order to provide desired telecommunications services.[108] In AT&T v. Iowa Utils. Bd., the Supreme Court upheld the Commission's rules requiring the provision of

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[106] Id. at 15763-64.

[107] 47 U.S.C. § 251(c)(3).

[108] See e.g., First Local Competition Order, 11 FCC Rcd at 15647-48; Application of BellSouth Corporation Pursuant to Section 271 of the Communications Act of 1934, as amended, to (continued...)

combination of network elements.[109] The Commission should reaffirm that CLECs may request required network elements in combination without restriction. NEXTLINK, therefore, urges the Commission to re-promulgate Rules 315(c) – (f) and require ILECs to provision UNEs as requested by CLECs. In addition, NEXTLINK requests that the Commission require incumbent LECs to provide certain minimum combinations in order to avoid further delay and litigation and to speed the development of competition.

The Supreme Court's reinstatement of Rule 315(b) makes it clear that an ILEC must make available to competitors on a cost-based, unbundled basis combinations of UNEs used by the ILEC in provisioning services to its own carrier and end-user customers.[110] As the Commission explained in its First Local Competition Order, "incumbent LECs are required to perform the functions necessary to combine those elements that are ordinarily combined within their network, in the manner in which they are typically combined."[111] The Commission should reaffirm this conclusion here to curtail the ability of ILECs to employ overly technical readings of the rule in an effort to end-run their newly reinstated obligation to provide combinations of network elements.

NEXTLINK urges the Commission to clarify that ILECs cannot avoid their obligation to provide network elements in combination simply because the requested facilities and functionalities have not been deployed in combination to a specific end-user before. Such an

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(...continued)
Provide In-Region, InterLATA Services in South Carolina, Memorandum Opinion and Order, 13 FCC Rcd 539 (1997) at 646-56.

[109] AT&T v. Iowa Utils. Bd. at 736-38.

[110] Id.

[111] First Local Competition Order, 11 FCC Rcd at 15648.

interpretation of the combination rules is clearly anti-competitive and in conflict with the Commission's more general rules on nondiscrimination and access to network elements. The Commission's rules require ILECs to provide CLECs with access to network elements (and combinations of network elements) that is equal to what the ILEC provides to itself, its affiliates or its end-users. The Commission's rules also recognize that the ILEC's network was not originally designed to provide CLECs with access to network elements and that the ILEC must make modifications in order to provide CLECs with such access. Therefore, if the ILEC provides the same "combination" (even if the ILEC in other instances does not label it a combination of network elements) in its network, it must do so for the CLEC and the CLEC's end-users. For example, ILECs might argue that there are no "pre-existing" combinations for customers at new addresses. Similarly, ILECs could argue that there are no "pre-existing" combinations for customers switching from one CLEC to another. Neither, of these interpretations of the rule, however, are consistent with the Act or the Commission's existing rules concerning combinations.

For similar reasons, NEXTINK requests that the Commission prohibit ILECs from degrading CLEC access to combinations through the imposition of non-cost-based "glue charges." ILECs have delayed or eliminated the practical usefulness of combinations over the last three years by imposing these excessive charges on top of the cost-based rates CLECs must pay for network elements. Many state commissions have accepted or approved these charges under the Eighth Circuit's decision in Iowa Utils. Bd. v. FCC. The Commission should now explicitly prohibit ILECs from imposing non-cost based charges on the provision of combinations.

1. The Commission Should Require ILECs to Make Available Any Technically Feasible Combination.

The Supreme Court's rejection of the Eighth Circuit's interpretation of Section 251(c) is evidence that the Eighth Circuit erred in vacating Rule 315(b), and the Commission's other combination rules. The Supreme Court did not reinstate the other Commission rules pertaining to combinations because those rules, Rules 315(c)-(f), were not before it. Since the Supreme Court's decision, the Commission and other parties have sought to address this open issue by petitioning the Eighth Circuit to reinstate or remand Rules 315(c)-(f).[112] The Eighth Circuit, however, has failed to act on these requests. Thus, consistent with the Supreme Court's affirmation of the Commission's interpretation of the combination requirement in Section 251(c), NEXTLINK urges the Commission to adopt a new rule requiring ILECs to provide UNEs in any technically feasible combination.

2. The Commission Should Reaffirm that ILECs May Not In Any Way Restrict the Use of UNE Combinations.

As discussed above with respect to ILEC efforts to restrict CLECs' use of the extended loop UNE, the Commission must confirm that ILECs cannot place limits on the use of combined UNEs. In its First Local Competition Order, the Commission expressly made clear that UNEs are available to CLECs for the provision of any "telecommunications service."[113] This conclusion is in no way limited to CLECs' use of discrete UNEs. Rather, it extends to the use of combinations as well. This conclusion is confirmed by the language of Commission Rule 309(a)

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[112] See e.g., Iowa Utils. Bd. v. FCC, Response of the Federal Respondents to Local Exchange Carriers' Motion Regarding Further Proceeding On Remand and Motion for Voluntary Partial Remand (March 19, 1999).

[113] First Local Competition Order, 11 FCC Rcd at 15632-33. (citations omitted).

which states that "[a]n incumbent LEC shall not impose limitations, restrictions, or requirements on requests for, or the use of, unbundled network elements that would impair the ability of a requesting telecommunications carrier to offer a telecommunications service in a manner that the requesting telecommunications carrier intends."[114]

ILEC restrictions on CLECs' use of combinations not only would run afoul of Section 251 and the Commission's rules and decisions implementing it, but such restrictions also would contravene the Commission's Advanced Services MO&O and the general advanced services mandate in Section 706. As the Commission found in its Advanced Services MO&O, the pro-competitive provisions of the Act, including Sections 251 and 706:

> [A]pply equally to advanced services and to circuit-switched voice services. Congress made clear that the 1996 Act is technologically neutral and is designed to ensure competition in all telecommunications markets.[115]

NEXTLINK, therefore, requests that the Commission act preemptively by foreclosing restrictions on requesting carriers' use of UNE combinations.

3. To Prevent Unnecessary Litigation, the Commission Should Identify Specific Combinations that Must Be Provisioned Under Rule 315(b).

Based on previous ILEC efforts to exploit technicalities in Commission rules, it is imperative that the Commission provide explicit guidance concerning combinations if Rule 315(b) is to have its intended effect. In order to preempt unnecessary litigation and delay, NEXTLINK requests that the Commission explicitly identify the following combinations that ILECs should be required to provide under Rule 315(b):

- a loop/concentration-routing/transport combination;

[114] 47 C.F.R. § 51.309(a).

[115] Advanced Services MO&O, 13 FCC Rcd at 24017.

- a transport/multiplexing-routing/transport combination; and
- an inside wire/NID/loop or sub-loop combination.

NEXTLINK's request that the Commission explicitly require ILECs to provide these three combinations should not be taken to suggest that other combinations, or parts of the combinations suggested by NEXTLINK, should not be required under Rule 315(b). Instead, by identifying a minimum number of combinations, the Commission will provide certainty to competing carriers and reduce the number of disputes that arise under Rule 315(b).

a. Combinations of Loops, Concentration/Routing Devices, and Transport.

As NEXTLINK discussed above, it is essential for competitors to obtain access to transport functionality comprised of a loop, concentration/routing equipment, and transport.[116] NEXTLINK urges the Commission to clarify its loop definitional rules to require ILECs to provide the extended loop at CLEC request. However, whether the Commission provides competitors with access to the extended loop by modifying its loop definition, or by requiring ILECs to provide a combination of loop, concentration/routing equipment, and transport, it is critical that new entrants have access to the extended loop functionality.

b. Combinations of Transport Between ILEC Offices with Transport Between ILEC Offices and CLEC Nodes.

As NEXTLINK discussed above, the Commission has made it clear that the ILECs obligation to provide unbundled transport includes an obligation to provide unbundled access to interoffice facilities between ILEC end offices and to interoffice facilities between ILEC and CLEC end offices. It is also necessary for the Commission to identify that the combination of

[116] See Section III.A.1.c.2. supra for a discussion of Extended Loops.

discrete transport segments and intervening routing/muxing equipment is required under Rule 315(b). ILECs routinely combine discrete transport segments for themselves. Indeed, this is the only way that end office-to-tandem-to-end office connections are made. To curb this anti-competitive practice, NEXTLINK submits that the Commission should explicitly find that transport/routing-muxing/transport combinations are required under Rule 315(b).

c. Combinations of Loops or Subloop Components with Inside Wire.

Above, NEXTLINK set forth the need for the Commission to require ILECS to provide CLECs with access to inside wire owned or controlled by the ILEC. As NEXTLINK discussed above, access to the "last hundred feet" controlled by the ILEC is, in and of itself, critical to reaching many customers. For many premises, however, a combination of loop (including distribution cable and remotely deployed electronics), NID and inside wire is necessary to provision service to the end-user. ILECs deploy such combinations in their own provisioning of services to end-users. To compete on a level playing field, facilities-cased competitors must have cost-based access to the same combinations. To ensure such access, the Commission should affirmatively find that cost-based access to UNE combinations consisting of inside wire, the NID, and the loop or sub-loop elements, including distribution cable and remotely deployed electronics, is required under Rule 315(b).

III. CONCLUSION.

Accordingly, for the reasons described herein, NEXTLINK respectfully requests that the Commission adopt the rules and policies NEXTLINK has proposed.

Respectfully submitted,
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